

(11)Publication number:

11-195713

(43) Date of publication of application: 21.07.1999

(51)Int.CI.

H01L 21/8238 H01L 27/092 H01L 27/108 H01L 21/8242 H01L 29/80

(21)Application number : 10-000599

(71)Applicant : SONY CORP

(22)Date of filing:

06.01.1998

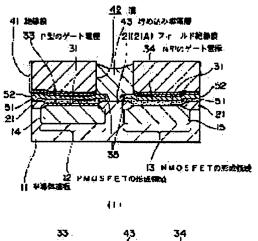
(72)Inventor: TSUKAMOTO MASANORI

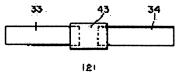
## (54) SEMICONDUCTOR DEVICE AND MANUFACTURE THEREOF

## (57) Abstract:

PROBLEM TO BE SOLVED: To prevent the generation of mutual diffusion of impurities through a tungsten silicide of a gate electrode and to prevent increase in a process number, by eliminating the need of introducing the impurities to the gate electrode in a different process.

SOLUTION: A field insulation film 21A for separating a formation region 12 of a PMOSFET and a formation area 13 of an NMOSFET is provided on a semiconductor substrate 11. Then, a P-type gate electrode 33 of the formation area 12 of the PMOSFET and an N-type gate electrode 34 of the formation area 13 of the NMOSFET are physically separated on the field insulation film 21A, and an embedded conductive layer 43 connected to both





gate electrodes 33 and 34 is formed inside a groove formed on an insulation film 41 covering both gate electrodes 33 and 34 and reaching a separation part of both gate electrodes 33 and 34.

## **LEGAL STATUS**

[Date of request for examination]